

Contents Volume 105, 1993

Special Issue "Geochemical Kinetics of Mineral–Water Reactions", by S.L. Brantley and M.A. Velbel (Editors)	
<i>Preface</i> , by S.L. Brantley and M.A. Velbel (Editors)	vii
What do dissolution experiments tell us about natural weathering?	
W.H. Casey, J.F. Banfield, H.R. Westrich and L. McLaughlin	1
Rates of hornblende etching in soils in glacial deposits of the northern Rocky Mountains (Wyoming–Montana, U.S.A.):	
Influence of climate and characteristics of the parent material	
R.D. Hall and L.L. Horn	17
Development of etch pit size distributions on dissolving minerals	
I.N. MacInnis and S.L. Brantley	31
Mineral dissolution rates in plot-scale field and laboratory experiments	
N.G. Swoboda-Colberg and J.I. Drever	51
Estimation of the dissolution rates of andesitic glass, plagioclase and pyroxene in a flank aquifer of Poás Volcano, Costa Rica	
G.L. Rowe, Jr. and S.L. Brantley	71
Constancy of silicate–mineral weathering-rate ratios between natural and experimental weathering: implications for hydrologic control of differences in absolute rates	
M.A. Velbel	89
Hydrologic control of chemical disequilibria in soil and surface waters, Sogndal, Norway	
R.A. Parnell, Jr.	101
Dissolution of primary basaltic minerals in natural waters: saturation state and kinetics	
S.R. Gíslason and S. Arnórsson	117
Free energy dependence of albite dissolution kinetics at 80°C and pH 8.8	
T.E. Burch, K.L. Nagy and A.C. Lasaga	137
Controls on marine carbonate cement mineralogy: review and reassessment	
E.A. Burton	163
Geochemical constraints on CaCO ₃ transport in subsurface sedimentary environments	
J.W. Morse and F.T. Mackenzie	181
Stability and kinetics of kaolinite to boehmite conversion under hydrothermal conditions	
W.-L. Huang	197
Effects of differential reactivity of minerals on the development of brittle to semi-brittle structures in granitic rocks:	
Textural and oxygen isotope evidence	
D.C. Kamineni, R. Kerrich and A. Brown	215
<i>Research papers</i>	
Significance of slab-derived partial melts and aqueous fluids for the genesis of tholeiitic and calc-alkaline island-arc basalts: Evidence from Mt. Arayat, Philippines	
M. Bau and U. Knittel	233
ESR-determined manganese partitioning ratios in dolomite synthesized at 180° and 250°C	
R.V. Lloyd, C. Scott Morie and D.N. Lumsden	253
Effects of mineral precipitation on the sulfur isotope composition of hydrothermal solutions	
Y.-F. Zheng and J. Hoefs	259
Epigenetic sulfide mineralization associated with Pennsylvanian paleokarst in eastern Iowa, U.S.A.	
P.L. Garvin and G.A. Ludvigson	271
<i>Isotope Geoscience Section</i>	
<i>Research Papers</i>	
Origin of siderite deposits from the Lombardy Valleys, northern Italy: a carbon, oxygen and strontium isotope study	
G. Cortecci and P. Frizzo	293
High-precision oxygen isotope microanalysis of ferromagnesian minerals by laser-fluorination	
D. Matthey and C. Macpherson	305

Geochronology of Gaborone Granite Complex extensions in the area north of Mafikeng, South Africa D.F. Grobler and F. Walraven	319
⁴⁰ Ar- ³⁹ Ar chronology of Variscan tectono-metamorphic events in an exhumed crustal nappe: the Monts du Lyonnais complex (Massif Central, France) S. Costa, H. Maluski and J.-M. Lardeaux	339
<i>Book Review</i> <i>Geochemical Reference Material Compositions</i> , by P.J. Potts, A.G. Tindle and P.C. Webb — M.F. Thirlwall	361
<i>Announcement</i>	363
<i>Contents Volume 105, 1993</i>	365